

The Everyday Gourmet

Baking Pastries and Desserts

Chef Stephen L. Durfee

The Culinary Institute of America



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Stephen L. Durfee, C.E.P.C., C.H.E.

Pastry Instructor
The Culinary Institute of America
at Greystone

Chef Stephen L. Durfee is a Pastry Instructor at The Culinary Institute of America (CIA) at Greystone in California's Napa Valley; he has been on staff at the CIA since November 2000. He is a Certified Executive Pastry Chef and a Certified Hospitality Educator.

Formerly the pastry chef of The French Laundry in Yountville, California, Chef Durfee was part of the restaurant's 1994 opening team. He spent more than five years at the popular restaurant, running the garde-manger and fish stations before assuming responsibility for the Pastry Department. While at The French Laundry, he won the 1998 James Beard Award for Outstanding Pastry Chef and was named one of the Top Ten Pastry Chefs in America in 1999 by *Pastry Art & Design* and *Chocolatier* magazines.

Other professional experience includes working as a pastry chef at Charles Nob Hill in San Francisco, California, and the Wheatleigh in Lenox, Massachusetts, and as a pastry instructor at Peter Kump's New York Cooking School, where he earned his certificate in Pastry and Baking in 1991. Chef Durfee also has traveled and worked in France, where he apprenticed at restaurants in Paris and Chambéry.

Chef Durfee has participated in and judged numerous professional competitions. In 2007, he represented the CIA at the National Pastry Team Championship, where his team collected a bronze medal. He has twice been chosen to participate in the U.S. selection for the World Chocolate Masters competition and, in 2010, finished in third place. Chef Durfee served as chocolatier for the U.S. team at the Coupe du Monde de Pâtisserie in Lyon, France. ■



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Handle with Care— Basic Doughs

Lesson 1

Many people are interested in learning how to bake, but they're intimidated because they think baking is too complicated or scientific. In these lessons, we'll learn that there is science behind baking, but once you understand this science—what happens when you over-aerate a custard or what chemical reaction takes place when baking soda is mixed with cocoa powder—you'll get much better results. These lessons include techniques, ingredient lists, and instructions for making a variety of desserts, dessert toppings, and quick breads, as well as tips for figuring out what may have gone right or wrong with your finished products. This first lesson begins with an overview of basic doughs for cookies and pound cake.

General Tips

Perhaps the most important first step in baking is to organize your tools in a clean workspace with plenty of room to move around. As you work, try to keep the workspace clean; stack dirty dishes in one place on the countertop.



One of the greatest tools for cleanup in the kitchen is a plastic scraper. You can use it to move any excess dough to one place on the countertop or clean your hands off with it.

The proper method for measuring flour is to scoop the flour into the measuring cup and then level it off by tapping. Some recipes call for you to dip and sweep, which means pushing the cup through the flour and then sweeping it off at the top.

Allow eggs to sit on the counter and come to room temperature before you incorporate them into a dough. If the eggs are too cold, they will be difficult to blend in to the dough, but if they're at room temperature, they will be much easier to emulsify into the butter/sugar mixture. If the eggs aren't incorporated properly, the dough may spread or color unevenly when baked.

If you're using a mixer to make cookie dough, use the paddle tool, not the whisk. Remember to stop the mixer periodically to scrape down the sides of the bowl and make sure the ingredients are evenly distributed.



When you're placing cookies on a baking tray, remember that they will spread and change shape a little as they bake. Space them apart on the tray so that they don't spread into each other.

Prepare a cake pan by putting a piece of parchment paper across the bottom to ensure the cake won't stick. You can also brush the pan with a bit of softened butter and dust it with flour.

Make sure you bake cookies and cakes in a preheated oven, generally 325° to 350°, and choose the proper baking pans. Thin, flimsy baking trays often lead to burned cookies. If you're using dark cookware, be aware that your finished cakes will be darker in color. Fill cake pans about two-thirds full with batter.

Creaming

The first basic technique to master in baking is creaming. You may be familiar with the creaming method from making a variety of cookies and cakes. The creaming method involves using four basic ingredients that we'll come across again and again in baking: sugar, butter, eggs, and flour.

Thinking about the functions of these ingredients can help take some of the mystery out of baking. Our basic ingredients can be divided into two categories: **liquefiers** or **stabilizers**. Liquefiers are ingredients that make doughs become softer and perhaps make them spread; in our short list of ingredients, the liquefiers are sugar and butter. Stabilizers are ingredients that help doughs hold together—here, eggs and flour. If you're trying to determine what went wrong in a finished product, it may be helpful to think about the roles of the ingredients.

Measuring Ingredients

Probably the biggest obstacle to getting consistent results in baking is making proper measurements. Most recipes call for measuring ingredients in terms of weight, and weight measurements are the most accurate.

Note that volume measurements are based on water. If you measure out 1 cup of water and put it on a scale, the water would weigh 8 ounces. But if you measure 1 cup of flour and put it on a scale, the flour won't weigh anywhere near 8 ounces. This is a point of confusion for many people.

Lumps in your ingredients, such as sugar and flour, can affect the weight and, thus, the volume in measuring. If your ingredients are lumpy, sift them before measuring.

If you're analyzing a finished product to figure out what went right or wrong, the first question to consider is: Did you measure the ingredients correctly?

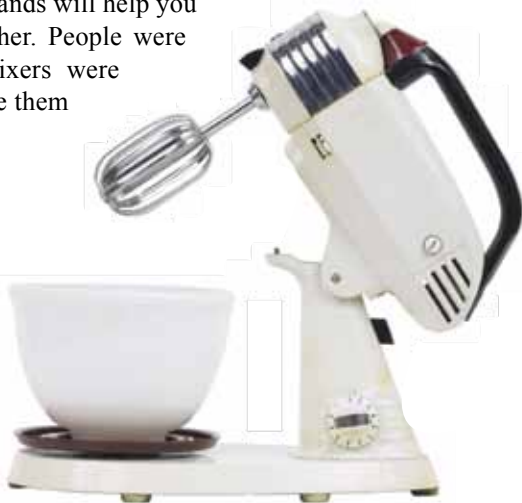
Flavoring ingredients include such things as salt (to ensure the dough isn't bland), chocolate chips, raisins, or nuts. These ingredients add flavor and texture, but they don't influence the formation of the dough or how it behaves.

The object of creaming is to incorporate air into a sugar/butter mixture. The more air that's incorporated, the more tender the resulting dough will be. But for cookie or tart dough, too much air may cause the cookies to spread too much or the dough to rise too much.

Many people use a mixer for putting together a basic dough with the creaming method, but if you're just getting started, try making the dough by hand—work with a wooden spoon or, literally, your hands. Certainly, using a mixer can make things a little bit easier and cleaner, but if you really want to understand what's taking place when you're mixing up a dough, actually using your hands will help you see how the dough comes together. People were making cookies long before mixers were invented, so it is possible to make them by hand!

Using a Mixer

There are some definite advantages to using a mixer—it's cleaner and easier—but there are also a couple of disadvantages, particularly, the tendency to overmix the dough.



When you set the speed of your mixer, remember that it's replacing the work of your hands. If you think about how fast you use your hands to work with the dough, you'll realize that you don't need to crank the mixer up to high!

If you notice uneven results with a tray of cookies—some of them look great, some of them have spread too much, and some of them haven't spread enough—it's likely that you didn't scrape down the mixing bowl as you worked. The butter and sugar accumulated at the bottom of the bowl, and the flour remained on top. If you're mixing dough by hand, you don't usually run into this problem, but if you're using a machine, you need to stop it periodically to properly scrape down the sides of the bowl.

Creaming Method: Basic Cookie Dough

Ingredients

- 5 oz sugar
 - 10 oz butter
 - 1 egg
 - ½ tsp salt
- 16 oz all-purpose flour



To begin making a basic dough, sift the sugar if necessary to remove any lumps and check the butter to make sure it is at room temperature; if you can dent the butter by pressing it with your finger, the temperature should be about right. If the butter is too cold, it will be difficult to mix, and if it's too soft, the dough will not come together correctly and may be a bit greasy. You can soften the butter by pressing it with the palm of your hand right on the countertop.

As the butter begins to soften under your hand, mix in some of the sugar. At this point, you may want to transfer the butter to a bowl. Mix in the rest of the sugar using a wooden spoon, a rubber spatula, or a scraper. It may take a few minutes to get the sugar blended in properly with the butter. As you're blending the sugar and butter, you're incorporating a certain amount of air into the mixture, and the more air that's present, the more tender the mixture will be.

When you're making cookies or tart dough, you don't necessarily want a lot of air in the mixture, because the cookies will spread too much or the dough will rise too much—the dough will be too tender and too fragile. This is a good reason to make dough by hand rather than using a mixer; you're unlikely to overmix the dough if you're working with your hands, but with a machine, overmixing is always a possibility.



Once the sugar and butter are blended together, it's time to introduce an egg. Crack the egg on the countertop rather than the side of the bowl to avoid getting any bits of shell in the dough. Then empty the egg into the bowl and blend it with the other ingredients.



Next, mix in the flour and salt. The dough will be fairly dry and crumbly because it is tender. As you work with it, you'll feel it start to pull together and become more uniform. In a machine, the flour would be blended evenly in the dough very quickly, but again, you want to be careful that you don't overmix. When you're finished blending, cover the dough with a piece of plastic wrap and put it in the refrigerator for about 30 minutes to firm up.

Creaming Method: Sugar Cookie Dough

Ingredients

- 10 oz sugar
- 16 oz butter
- 2 tsp vanilla extract
- 2 eggs
- 24 oz flour
- 1 tsp salt



For this recipe, we'll use a mixer. But as we said, creaming is about incorporating air into a butter/sugar blend, and the more air that's incorporated, the more fragile the dough will be. When you're using the mixer, you need to avoid overmixing, or the dough will be too tender and may break.

Put the butter and sugar in the bowl and turn the mixer on to a medium speed. Remember, the machine is taking the place of your hands in working the butter and sugar, so you don't need to turn it up to a high speed.

While the mixture is being blended, stop the bowl periodically and scrape down the sides to ensure an even distribution of ingredients. Look for a visible lightening of color in the mixture; the butter should change from yellow to almost white. That's evidence of air being blended inside the mixture.

Once the sugar and butter are blended together, stop the mixer, scrape down the sides of the bowl, and add the eggs, salt, and vanilla. Again, as you allow those ingredients to mix, keep scraping the sides of the bowl. If the eggs are too cold and aren't mixing well, you may have to turn up the speed on the mixer.

The next step is to add the flour, but first, turn the mixer to a slow speed or you'll end up wearing most of the flour! As we said, the function of flour is to hold the dough together. The more you mix in the flour, the more elastic the dough becomes. You want to mix in the flour just enough so that all the



ingredients are well blended. At that point, scrape the sides of the bowl one more time and turn the dough out on the countertop to finish it with your hands.

Wrap the dough in plastic and refrigerate it for about 30 minutes. When the dough is cold, remove it from the refrigerator and shape your cookies (see “Shapes for Cookies”). Place the cookies on a baking tray lined with parchment paper and bake until golden.

Shapes for Cookies

The basic creaming method for making cookie dough yields an interesting variety of finished products. After you’ve made your dough, you can cut it with cookie cutters, scoop it with an ice cream scoop, cut it from a log shape, or put it into a pastry bag and pipe out decorative shapes.

If you want to roll out the dough and use cookie cutters, start by dusting the countertop and the top of the dough with a little bit of flour to keep the dough from sticking. Roll the dough out fairly quickly, especially if you’re in a warm room, because cold dough is much easier to work with.

When you’ve got the dough rolled out to an even thickness, dip a cookie cutter in flour and press it straight down into the dough. Carefully remove the cookie to a baking tray lined with parchment paper. Try to be economical with the dough as you cut. You can reroll the scraps and cut more cookies, but the best cookies come from the first roll. As you reroll, more flour is incorporated into the dough, which can change the texture of the cookies.



One of the easiest techniques for shaping cookies is to roll the dough into a log in a piece of parchment paper, refrigerate it for about 15 minutes, and then cut it into pieces. Even easier than that is scooping the dough with an ice cream scoop, although for this method, the dough should be a little bit warmer. Scooped cookies are uniform in size and shape and spread to a nice round finish. This method is often used for chocolate chip, oatmeal, and raisin cookies.

If you want a more decorative look for your cookies, you can use a pastry bag. For this technique, the dough must be softened back to room temperature. You will also need to cut the opening of the bag so that the dough will fit through the tip properly. Don't work with too much dough at a time or the bag will burst. Hold the bag over the surface of the baking tray and pipe straight down. Piping is a variation of using an old-fashioned cookie press.

You can put a cherry or a nut on top of each cookie or sprinkle them with sugar for a decorative finish.

Creaming Method: Pound Cake

Ingredients

- 8 oz butter
- 8 ½ oz sugar
- 3 eggs
- 3 egg yolks
- 2 tsp vanilla extract
- 7 oz cake flour
- ¾ tsp baking powder
- ½ tsp salt



Use the creaming method to blend the butter and sugar, then add the eggs, egg yolks, salt, and vanilla. Once those are blended, add the flour and baking powder. Notice that this dough, or batter, is much softer than the cookie dough. Again, be careful in mixing. An overmixed cake will be full of holes once it's baked, while one that's undermixed will have very little structure; it may stick to the bottom of the pan or be gummy.

Transfer the batter to a loaf pan or a decorative ring pan. To get a nice crack in the center, wet your finger and run it down the center of the batter in the pan. That creates a weak spot in the center of the cake so that as it rises, it will develop a decorative crack.

Bake at 325° for about 1 hour, until golden.

Important Terms

flavorings: Ingredients, such as salt, chocolate chips, raisins, or nuts, that add flavor and texture to a dough but don't influence the formation or behavior of the dough.

liquefiers: Ingredients that make doughs become softer and perhaps make them spread, commonly, sugar and butter.

stabilizers: Ingredients, such as eggs and flour, that help doughs hold together.



Mixing It Up— Methods for Cakes

Lesson 2

For many people, the excitement in baking lies in making different types of cakes, and whether it's a humble pound cake or the most show-stopping wedding cake, all cakes are made with just a few basic mixing methods. In the last lesson, we saw the creaming method of mixing, in which air is incorporated into butter; once that air is exposed to heat, it expands, causing the cake to rise. In this lesson, we'll look at two additional methods of mixing—the combination method and the foaming method—and we'll apply these in making a devil's food, a chiffon, and an angel food cake.

General Tips

Put dry ingredients that tend to become lumpy, such as cocoa powder, flour, confectioners' sugar, baking powder, or baking soda, through a sifter, a fine-mesh sieve, or a **tamis** (drum sieve) before you use them in making a batter.

Cake flour is a low-gluten flour that is perfect for making cakes. Because it's high in starch, cake flour is less likely to develop an elastic quality when it's mixed, giving the cake a better texture. The high starch content, however, means that cake flour has a tendency to become lumpy; again, make sure you sift it before preparing your batter.



Place the tamis, or drum sieve, on a piece of parchment paper or wax paper. Then, push dry ingredients through the fine mesh with your hand to ensure that no lumps remain.

Basic Mixing Methods

As we saw in the last lesson, the **creaming method** of mixing—used, for example, in making pound cake—incorporates air into butter. When that air is exposed to a hot oven, it expands and causes the cake to rise in the pan. This is called **leavening**. A pound cake doesn't really leaven much because, ultimately, not that much air is incorporated into the butter. Even a properly made pound cake will be fairly dense; for light and airy cakes, a different mixing method is necessary.

With the **combination method** of mixing, some form of chemical leavener, such as baking powder or baking soda, is moistened with either water or milk, resulting in a chemical

reaction: the formation of carbon dioxide bubbles. When those bubbles are exposed to heat, they expand, causing the cake to rise. Devil's food cake and muffins or quick breads are made using this method.

The **foaming method** of mixing is the most complex of the three. Here, eggs (either whole or separated into yolks and whites) are whipped to incorporate air, then folded into other cake ingredients. Again, when exposed to heat, the air in the eggs expands and causes the cake to rise, resulting in a light and delicate cake.

Testing for Doneness

Just as an accomplished chef can test the doneness of a piece of meat with his or her hand, a baker can test doneness by gently pressing on the top of a cake and watching for it to spring back.

You can also insert a toothpick or a bamboo skewer into the center of the cake and lift it out. If the

Preparing Your Pans

If you're using a flat-bottomed pan, such as a loaf pan or a ring pan, it's helpful to put a piece of parchment paper on the bottom of the pan to ensure that you can tip the cake out without difficulty.

You can then grease and flour the pan or use the pan without grease or flour. If you're using butter, soften it in the microwave until it reaches a mayonnaise consistency; then brush the butter on top of the paper in the bottom of the pan. You can also use pan spray, but butter tastes better.

After you've buttered the inside of the pan, tip a spoonful of flour into it, turning the pan as you do to coat it with a light dusting. You need just enough flour to form a grip surface on the inside of the pan; the object here is to give your cake a little bit of a handhold to climb up the walls of the pan. If you grease the pan only and don't flour it, the finished cake may pull away from the sides of the pan and shrink a little.

skewer looks wet, that's an indication that the center of the cake hasn't baked all the way through. Of course, you insert the skewer into the center of the cake because that's the part that cooks last.

Finally, you can use a thermometer to test for doneness. Insert a thermometer into the center of the cake and look for a reading of 195° to 205°.

Removing Cake from the Pan

Allow the cake to cool for about 30 minutes inside the pan before you try to take it out. If you let it cool any longer, it will likely get moist on the inside and some pieces of it may break off.

To remove the cake from the pan, use an offset spatula or a paring knife. Press the spatula against the inside of the pan and turn the pan counterclockwise.

Once you've gone all the way around the pan, turn the cake upside down onto your hand or a plate. If the cake sticks to the bottom, give the pan a gentle tap.

Peel off the parchment paper and transfer the cake to a plate. If you're planning to freeze the cake, leave the parchment paper on to make the cake easier to wrap.

Combination Cake: Devil's Food

Ingredients

- 2 ½ oz cocoa powder
- 14 oz sugar
- 14 oz boiling water
- 5 oz canola oil
- 3 eggs
- 1 tsp vanilla extract
- 10 oz flour
- 1 ½ tsp baking soda
- Pinch salt



To begin making a devil's food cake, put the cocoa powder through a sifter, then whisk it with a little bit of hot water to make a mixture that is similar in consistency to chocolate syrup. Make sure the mixture is completely smooth. Set it aside to cool for a few minutes before adding the eggs; otherwise, you'll end up with chocolate scrambled eggs!

Next, blend the dry ingredients—regular granulated sugar, salt, and baking soda. Don't confuse baking soda with baking powder. Baking soda is an alkali and must be mixed with some form of acid in order for the required chemical reaction to take place. In a devil's food cake, the acid to be mixed with the baking soda is cocoa powder. When these two are blended together, an immediate chemical reaction takes place, which means that the ingredients can't be combined in advance. The chemical reaction will start as soon as the acidic mixture and the alkaline mixture are combined—bubbles will be created inside the batter. At that point, you need to get the mixture into the oven as soon as possible.

Sift the all-purpose flour into the other dry ingredients. This step eliminates lumps in the flour and aerates it somewhat. Then mix the dry ingredients well.

To the cooled cocoa mixture, add the oil, vanilla flavoring, and eggs. Again, make sure the cocoa mixture is cool enough (room temperature) so that it doesn't cook the eggs or become gummy when added to the flour.

Stir the wet mixture into the dry and blend until the two are thoroughly combined. Remember that flour, especially all-purpose flour, has the tendency to become somewhat elastic in texture. If you mix it too much, the batter could get stretchy. Don't beat the dry and wet ingredients; just mix them until the flour is thoroughly distributed and you don't see any lumps.



Divide the batter into two pans and put it into the oven immediately. The cake is done when it springs back from a light touch and has a glossy sheen on the surface. Remove the cake from the pan after about 30 minutes, and allow it to cool completely before frosting.

Egg Foam Cake: Chiffon

Ingredients

- 3 Tbs plus 1 tsp canola oil
- 3 egg yolks
- $\frac{1}{3}$ cup water
- 1 tsp vanilla extract
- $1\frac{1}{2}$ cups cake flour, sifted before measuring
- $\frac{1}{3}$ cup plus $\frac{1}{3}$ cup sugar
- $1\frac{1}{2}$ tsp baking powder
- $\frac{1}{4}$ tsp salt
- 3 egg whites



Egg foams are commonly made for classic sponge cakes, and they can be divided up into two general categories: whole-egg and separated-egg foams. This chiffon cake uses a separated-egg foam, resulting in a light, fluffy texture.

To start the chiffon cake, make a blend of egg yolks and oil. In effect, this mixture mimics mayonnaise, and in fact, some cakes are made with mayonnaise. Beat the egg yolks and gradually emulsify some vegetable oil into the yolks. Here, we're not foaming the egg yolks; we're just blending them and emulsifying the fat together. Once the yolks and oil are blended, dilute the mixture with a little bit of water and add the vanilla flavoring.

Sift together the cake flour and baking powder, and add the salt and half of the sugar. Stir the dry ingredients together until well mixed. You can also make a chocolate version of this cake by substituting cocoa powder (about $\frac{1}{4}$ cup) for a portion of the flour.

Next, make the meringue, or egg-white foam. Use room-temperature egg whites; if the eggs are cold, the meringue will be very slow to develop. Make sure you don't get any yolk into the egg whites, because any added fat will minimize the aeration of the whites. You will add the remaining sugar to the meringue as you make it to ensure that it doesn't become too dry.

Add the egg whites to the bowl of a mixer. When you're making a meringue, you're trying to balance volume, which you get by trapping air in the whipped egg whites, with stability, because you don't want all the bubbles to pop when you fold the meringue into the batter.

Mix the egg whites at medium speed. When the eggs become frothy and opaque (after a minute or so—they should look like the froth on top of a glass of beer), begin adding the sugar in a gradual stream, like a gentle rain. Adding the sugar faster will overwhelm the egg whites and cause them to drop and lose volume. As you add the sugar, the eggs will become frothier, resembling shaving cream. At this point, you can add the sugar a little faster and turn up the speed on the mixer. Be careful not to overdevelop the meringue because it will become dry. You want it to be a little bit fluid so that when you fold it into the batter, it doesn't break apart into chunks.





Look for the meringue to become creamy in appearance, like whipped cream. It has reached the perfect stage when it takes on a thick, rich, almost lustrous quality.

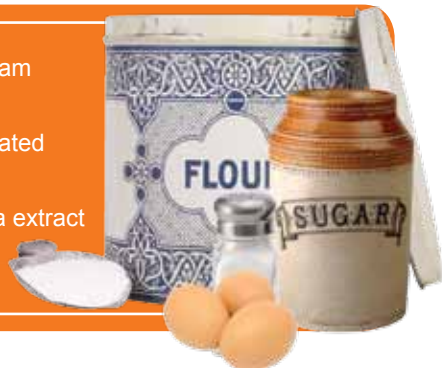
Now, blend the egg yolk mixture into the dry ingredients. Don't beat the mixture; just make sure it is evenly blended, with no lumps left in the flour. Next, fold in the meringue. (Don't leave the meringue sitting for too long, or it will start to become firm.) Mix the meringue only until you don't see any white stripes inside the bowl.

Pour the batter into a prepared pan (see "Preparing Your Pans") and put it in the oven. The cake is done when it springs back from a light touch or when a toothpick or skewer inserted into the center of the cake comes out clean. Allow the cake to cool in the pan for about 30 minutes before removing. When it's completely cool, frost with whipped cream or buttercream.

Egg Foam Cake: Angel Food

Ingredients

- 3 ¾ oz cake flour
- 5 oz confectioners' sugar
- ¼ tsp salt
- 13 oz egg whites, room temperature
- 1 ½ tsp cream of tartar
- 8 oz granulated sugar
- 1 tsp vanilla extract



Angel food cake is a variation of an egg foam cake that uses only meringue and no egg yolks; thus, it has a light texture and a creamy quality, and it's low in fat.

First, sift the flour and confectioners' sugar through a fine-mesh screen onto a piece of parchment or wax paper. Using the paper will allow you to easily transfer the sifted ingredients to the mixing bowl.

The next step is to make a stiff meringue. This recipe includes a bit of cream of tartar, which is a buffered form of tartaric acid that will allow you to whip the meringue until it's much stiffer without it becoming too dry.

Again, pour room-temperature egg whites into the mixing bowl and whip them on medium high until they become frothy and opaque. Pour a little salt into the egg whites to help break them up and make them more fluid. Salt relaxes the protein in the egg whites so that the mixture will hold the foam more effectively.

Once the egg whites have reached the frothy and opaque stage (and no longer look yellow), start adding the granulated sugar (in a gentle rain) and the cream of tartar.

Allow the meringue to take its time to develop. In the last recipe, for chiffon cake, we added baking powder, a chemical leavener, to make the cake rise. In the angel food cake, the only leavening is coming from the air that you're beating into the egg whites, so it's important to do a careful job here. Once you start seeing traces of the mixer's whisk in the mixture, you can add the sugar a little faster.

You want to whip this egg white a little bit more than you did with the chiffon cake. Because you will fold the flour into the meringue (rather than the meringue into a batter), it can be a little bit stiffer. Turn the mixer up to high speed for a minute or so and allow the meringue to become full. The more air you can beat into it, the better it will hold later on. You can also raise and lower the whisk somewhat so that you're not just whipping the mixture on the bottom.

When the meringue is full, turn the mixer down and add vanilla or other flavoring, such as lemon zest or almond extract. Without some flavoring, the cake will be a bit too aggressively sweet. Then, turn the mixer off.



Sift the dry ingredients again into the meringue so that they are nicely scattered across the top and don't deflate the meringue. Scatter a portion of the dry ingredients across the top, then carefully fold them in. Sift and fold the dry ingredients in two or three steps. As you fold, the goal is not to lose any volume in the meringue to ensure that the finished cake is delicate.

Transfer the batter to an angel food cake pan. The tube shape of this pan ensures that the cake is heated from the inside out, as well as from the outside in, allowing a nice crust to form on both sides. The crust should have a caramelized, crunchy quality.



A meringue will pull away from something that's greasy, so don't grease the pan. To prepare an angel food cake pan, wipe the inside with a wet cloth or paper towel or spray it with a fine mist of water. The wetness on the inside will allow the batter to grip the sides of the pan and ensure that the cake won't collapse.

To avoid spilling the batter, transfer it to the pan using a large ice cream scoop or guiding it with a rubber spatula or scraper. Bake the cake for about 45 minutes to an hour and then let it cool upside down so that it doesn't collapse. Even when it's cooked, angel food cake is still a very delicate foam; turning it upside down to cool will allow its own weight to help it retain its light quality. If your pan doesn't have "feet" on the sides that allow you to turn it upside down, invert it on a glass soda bottle.

Angel food cake can be served right side up or upside down, depending on whether you like the caramelized part on the top or the bottom. You can use a serrated knife to cut angel food cake or pull it apart using two forks.

Because angel food cake is sweet by itself, you might want to garnish it with something acidic and fruity, such as cut-up strawberries lightly macerated with sugar and lemon. You can also gild the lily with some delicately whipped cream.

Important Terms

combination method: A method of mixing in which some form of chemical leavener, such as baking powder or baking soda, is moistened with either water or milk, resulting in the formation of carbon dioxide bubbles that expand when exposed to heat.

creaming method: A method of mixing that incorporates air into butter to cause dough to rise when exposed to heat; used to make crumbly doughs.

foaming method: A method of mixing in which eggs (either whole or separated) are whipped to incorporate air; the air in the eggs causes dough to rise when exposed to heat.

leavening: The process of rising when a dough or batter is exposed to heat; also, ingredients that cause rising, such as baking soda.

tamis: A drum sieve.

Blue-Ribbon Winners— Pies and Biscuits

Lesson 3

Pastry doughs fall into two main categories that are defined by their textures: crumbly or flaky. In our first lesson, we discussed crumbly doughs made by the creaming method, which is how butter is distributed evenly throughout a dough. In this lesson, we'll see how to make a flaky dough using the rubbed-in dough method, and we'll learn how to make the two most common types of rubbed-in doughs, those for piecrusts and biscuits.

General Tips

Use cold butter to make the dough for a piecrust or biscuits; otherwise, the butter may be absorbed into the flour, and the dough will yield results that have a heavy texture.

Overworked dough may shrink and develop a tough texture. For example, overworked dough in a piecrust may cause the crust to shrink away from the pan when it's baked. This is a result of overdevelopment of the elasticity in the flour.

Every time you apply pressure to a dough, it will have the tendency to shrink; always give dough an opportunity to chill in the refrigerator between making and shaping or baking it.

Piecrust

Ingredients

- 2 ½ cups flour
- ½ tsp salt
- 10 oz cold butter
- 5 oz ice water



Typically, a piecrust is made by hand, but it can also be made in a food processor. Start out with the flour and butter that is cold and has been cut into small cubes. Toss the butter with the flour so that all the pieces are

evenly coated. Use your hands to literally rub the butter into the flour. The goal is to get the butter pieces distributed throughout the flour yet make sure they remain independent, that is, in discrete pieces. When you add water to the dough later on and roll it out, the pieces of butter will be flattened, and when you put the piecrust in the oven, they will expand in a flat, lateral network that will make the dough rise unevenly and lead to a flaky texture.

Having cold butter is important for this method. If the butter is warm, it could become greasy and be absorbed into the flour; that could lead to a dough that has an unpleasant, leaden texture. The butter should be cold enough so that you can press it through your fingers but not so cold that it is difficult to work with. You want to be able to break it up into pieces that are about the size of peas.

Alternatively, you can put the dough on the counter and chop it up with a bench scraper, a couple of knives, or a pastry blender to help cut the butter into small pieces. It may take a few minutes to get the butter rubbed in thoroughly.

Next, add the salt (to keep the dough from becoming bland) and the water. Use a plastic scraper to mix the water in with the dough, turning the bowl as you go. If the dough starts to stick to the scraper, push it off with your fingers.



You're not necessarily trying to make the dough come together in a ball inside the bowl; you just want to make sure that it has been evenly moistened. When it reaches that point, stop using the scraper and transfer the dough to the countertop.

Gently knead the dough to bring all of it together; again, don't overwork it. Use the heel of your hand to press it together to make sure the butter is evenly mixed throughout. At this point, the dough may feel tender and little bit wet. When you put it in the refrigerator, the texture of the dough will have a chance to even out, so it won't feel wet when you take it out.

Allow the dough to rest and chill in the refrigerator for about 30 minutes before rolling (see "Rolling Piecrust Dough"). Roll out the crust, transfer to a pie pan, and trim and finish the edge.

Rolling Piecrust Dough

After you've combined your ingredients for a piecrust dough and gently kneaded the dough to bring it together, allow it to rest and chill in the refrigerator for about 30 minutes before you roll it out; otherwise, the dough will be too soft to work with. Putting the dough in the refrigerator lets the butter firm up and makes the dough easier to handle.

When you remove the dough from the refrigerator, cut it in half. Generally speaking, you want about 1 ounce of dough per inch of diameter of your pie pan. For a 9-inch diameter pan, use about 10 ounces of dough. That will ensure a round shape for your crust.



Many people run into problems shaping piecrust dough into a circle when they roll it out. To get an even, round roll, first dust the countertop with a little flour to keep the dough from sticking. Then press the dough with your hands to make it look approximately like a hamburger patty. Again, don't knead it too aggressively, or it will become too elastic or glutinous.

Once you have a round shape, dust the top of the dough with a bit more flour—just enough to keep the rolling pin from sticking. Press the rolling pin into the dough without rolling; pick up the dough, rotate it a quarter of a turn, and press again. Pressing helps the dough roll out in an even fashion; if you were to just start rolling right away, the crust would probably be thin at the edges.



You should try to work quickly as you're shaping the dough; if it warms up too much, it will be difficult to handle.

Keep pressing and turning the dough to maintain a consistent round shape. This technique also ensures that the dough doesn't stick to the countertop because you're turning it a bit every time you press it.

When you reach the point where you can't press the dough any more, start rolling. Rather than rolling to the edge, just roll in small increments and keep turning the dough. Think of maintaining the general round shape without going off the edge. Again, because you're turning it, you're rolling the entire piece of dough. If the dough starts to stick to the countertop, dust a little more flour underneath.

Keep your pie pan nearby to give you a good idea of the size your crust needs to be as you're rolling. Don't make it too big, or it will be difficult to handle. The finished round should overhang the edges of the pie pan by about half an



Roll out about 1 ounce of dough per inch of diameter of your pie pan. Fold the dough in half and transfer it carefully to the pie pan, then unfold it and press it into the bottom of the pan. Trim off the excess dough and crimp the edge with your fingers.

inch or so; you will trim it after it's in the pan. Before you pick it up, use the palm of your hand to feel the crust and make sure it's even all around.

To transfer the dough, fold it in half, pick it up gently from underneath, and set it in the pan carefully. Unfold it and press it gently into the bottom of the pan. Trim the dough with a pair of kitchen scissors so that it hangs about half an inch away from the pan all the way around. Fold the overhang under to give the crust an even edge, sort of like hemming a dress. Once it's evenly folded, check to make sure that it has a consistent look around the outside.

You can leave the edge of the piecrust folded or finish the edge by pressing it with a fork, fluting it, or crimping. (Pastry crimpers can be used to give a decorative finish.) To crimp the edge with your fingers, make a V with your thumb and forefinger and press it on the outside of the shell. At this stage, you could freeze the piecrust for later filling.

Every time you apply any pressure to the dough, it will have the tendency to shrink; give your piecrust an opportunity to rest and chill in the refrigerator for another 15 minutes before baking or filling.

Blind Baking

The technique of **blind baking** is used for pies that have a custard filling, such as a chocolate or banana cream pie or a lemon meringue pie. Here, the crust is baked before the pie is filled.



For this technique, line the unbaked pie shell with parchment paper, then pour baking beans (dry beans from the grocery store) or **pie weights** into the shell. Fill the shell evenly with about half an inch of beans, pressing them to the edges.

Poking holes in the bottom of the crust to prevent the dough from bubbling up is called “**docking**,” but this step is not necessary when you line the crust with beans in blind baking.

Bake the crust until it is an even golden brown color.

Butter v. Shortening

Shortening is almost pure fat, so using shortening instead of butter yields a flaky, delicate piecrust. But shortening doesn't taste as good as butter does; further, a piecrust made with shortening may not have a golden brown color when baked. Piecrusts made with shortening are also extremely fragile and may break when you remove the baking beans.

Use a blend of butter and shortening to get a flaky crust that also has the color and flavor you can get only from butter.



Dough-Topped Pies

Fruit pies can be done with a simple bottom crust and, perhaps, a crumb or streusel topping, but a more elegant fruit pie generally has a rolled-dough top. For this, you can use one sheet of dough to cover the top of the pie and cut some holes in it, or you can make a lattice top. A lattice top is not really very complicated to make, but it gives your pie a great wow factor!

For the first option, a single sheet of dough covering the top of the pie, spoon the filling into the pie shell in the pan, then brush a little bit of beaten egg around the edges of the shell before covering it with a second piece of rolled-out dough. Trim the edge of the second piece of dough with a pair of scissors and flute it.

To make a lattice top, start with a piece of rolled-out dough that has been chilled in the refrigerator. Again, give the dough enough time to chill and relax so that you don't have to worry about it shrinking as you cut it. Use a ruler and a crimped pastry wheel, a pizza wheel, or a knife to cut strips of dough that are about $\frac{3}{8}$ inch wide (or wider or narrower, depending on the look you want). Take the time to cut the strips carefully, keeping the width consistent.

The next step is simply to weave the strips together. Instead of assembling the lattice on top of the pie, you can make it off to the side on a piece of cardboard or the back of a cookie sheet. Then, put it in the freezer for about 10 minutes before transferring it to the top of the pie in the pan.

Again, brush the edges of the filled crust with a bit of egg; then slide the frozen lattice onto the top of the filled crust. Wait a few minutes for the frozen lattice



to soften a bit before you press the edges of the two crusts together; otherwise, you might tear the bottom crust. You can then trim and flute the edge.

Biscuits

Ingredients

- 24 oz flour
- 2 oz sugar
- 1 ½ oz baking powder
- ½ oz salt
- 8 oz butter
- 4 oz eggs
- 12 oz buttermilk



Good biscuits are often described as being tender and flaky, a texture that comes from both high-quality ingredients and the mixing method. If you can make a piecrust, then you can make biscuits, too.

Combine the ingredients in the same fashion as you did for piecrust, rubbing the butter into the dry ingredients until it's blended into pea-size pieces. The little bit of sugar in the biscuits will give them a tender texture and a nice flavor and help them to brown.

After you've blended in the butter, stir in the buttermilk and eggs. The biscuit dough will be much softer than the piecrust dough because you're using more liquid. Again, don't overwork the mixture, or the biscuits will have a tough, disagreeable texture. Stir until all the ingredients are just combined—kneading is not necessary.

Transfer the dough to a piece of plastic wrap and press it down to flatten it. Wrap the dough in the plastic and put it in the refrigerator for 15 or 20 minutes to firm up.

Remove the dough from the refrigerator, flour the countertop, and roll the dough as you did for piecrust. Start by pressing the dough, then dust it a





bit with flour and use the rolling pin. Don't scatter too much flour on top of the biscuit dough, or the flour will burn when the biscuits go into the oven. Roll the dough out to about ½ inch thick.

Dip a straight cutter into some flour and press it straight down into the dough. Don't screw the cutter as you press. This will ensure that you get an even rise. If you find that the dough is sticking when you push down, you may need to return it to the refrigerator for a few minutes. Try to get as many biscuits as you can from the first roll because rerolled biscuit dough has a tough texture. If you do reroll the scraps, push them together very gently and give the dough one soft knead across the top before pressing it back out. Biscuits made from overworked dough won't spring up and will be tough and dry on the bottom.

Place the biscuits on a baking sheet and put them into the oven. Biscuits usually bake for a short time (8–10 minutes) at a high temperature (425°) to get a golden finish on the outside but a texture that is not dry and crumbly in the center.

Scones

Ingredients

- 30 oz flour
- 3 ½ Tbs baking powder
- 1 ½ tsp salt
- 7 oz sugar
- 10 oz fruit (e.g., currants or raisins)
- 1 qt heavy cream



Scones are similar to biscuits, but they have their own distinct set of rules for mixing. Instead of butter, heavy cream is used in making scones to give them their characteristic crumbly texture.

Blend the dry ingredients and fruit together. Add the heavy cream and stir the mixture together until it's just blended, being careful not to overmix. It's best to do this blending by hand rather than in a machine to avoid making the dough tough.

Once the dough is blended and evenly moistened, it will be very soft. Again, wrap it in plastic and put it in the refrigerator for about 30 minutes.



Remove the dough from the refrigerator, press and roll it out, and cut it into wedges using a knife or a bench scraper. There's no waste with this cutting method, so you don't have to worry about rerolling the dough.

Transfer the wedges to a baking sheet, brush the tops with a little bit of milk (to keep them moist), and sprinkle them with sugar. The sugar not only adds sweetness but will give the baked scones a crunchy texture.

Again, bake the scones at a high temperature (375°) for a short time (15–20 minutes). Look for a golden, crunchy, sugary finish across the top. Note that scones will not puff up the way biscuits do, but they will be delightfully tender on the inside because of the heavy cream used in blending.

Important Terms

blind baking: Baking a piecrust before filling; this technique is used for pies that have a custard filling, such as chocolate or banana cream pie.

docking: In blind baking, the practice of pricking holes in the bottom of a piecrust to prevent the dough from bubbling up. Docking is not necessary if pie weights or baking beans are used.

pie weights: Small ceramic or stainless-steel balls that are used to weigh down a piecrust for blind baking. Dried beans from the grocery store may also be used for this purpose.



Lighter Than Air— Cream Puffs

Lesson 4

Pâte à choux, or choux paste, is one of the classic doughs. Although it's sometimes called cream puff pastry, it actually has many other applications. The same dough can be used to make cream puffs, chocolate éclairs, profiteroles, and even profiteroles that might be fashioned into a glorious croquembouche. The method for making pâte à choux is unique in that it's a twice-cooked pastry dough. In this lesson, we'll learn how to make that dough, as well as a cream for filling your pastries and two glazes for topping them.

General Tips

When you're making **pâte à choux**, add the eggs one at a time. After incorporating the first egg, you may want to add just a portion of the second. If the dough still looks dry, you can add the rest of the second egg or even a little bit of a third.

Practice holding your whisk as you would a pencil to avoid tiring out your shoulder muscles.

In making pastry cream, add the flavoring as the last step. If you add vanilla or alcohol-based flavorings earlier in the process, the high heat at which the cream is cooked will cause the flavoring to evaporate.

If you're using chocolate from a candy bar to make ganache, chop it finely with a serrated bread knife.



To pipe éclairs, hold the pastry bag at an angle, touch it to the surface of the parchment paper, squeeze and lift the bag slightly, and allow the dough to come straight out. To pipe cream puffs, point the bag downward, squeeze, and twist the bag to form a small ball.

Pâte à Choux

Ingredients

- ½ cup water
- ½ cup milk
- ½ tsp salt
- ½ tsp sugar
- 4 oz butter
- 1 cup flour
- Up to 4 eggs



Pâte à choux, or choux paste, is a classic pastry dough. Although it is sometimes called cream puff pastry, it actually has many other applications. We'll use the same dough to make cream puffs (or **profiteroles**) and chocolate éclairs. The method for making pâte à choux is unique in that it's a twice-cooked pastry dough.

We start by pouring a mixture of milk and water into a pan on the stove. Some recipes use only water or only milk, but the combination of the two gives the finished product a nice flavor and color.

To the milk and water, add a little bit of salt and sugar for flavoring and some butter. Make sure the butter is softened before you put it in the pan; otherwise, the liquid will boil away while you're waiting for the butter to melt.

Bring the mixture to a boil. If you're cooking over a gas flame, adjust the flame so that it doesn't go over the side of the pan, which could cause the milk to burn.

When the mixture has reached a boil, take it off the heat and add the flour all at once. Typically, you use bread flour for this dough because you want the dough to be sticky and elastic. When you pipe and bake the dough, it will expand tremendously, and in order to hold all that air in, it needs to be fairly firm.

At this point, the mixture will look like mashed potatoes, and it won't have much structure. Return the pan to low heat and stir. The mixture will now tighten up to form a ball, and some of the moisture will evaporate, so the dough will be a little bit drier. Keep stirring to make sure the dough doesn't stick and burn on the bottom of the pan.

As you stir, open the mixture up a bit so that you can expose the inside to the direct heat of the fire. It may be a little tiresome to beat this mixture, but you



want to be careful that you don't let it scorch in the pan. After the dough comes together to form a ball, keep stirring and let it roast for about 1 minute to 1 ½ minutes over direct heat. You want the dough to get a starchy finish on the outside; that's a good indication that it's starting to dry out. If you cook it for too long, however, the butter will break out of the mixture, and it will begin to look greasy.

Once the dough is sufficiently dried out, take it off the heat. Transfer it to a mixer bowl, turn the mixer on low, and add the eggs in one at a time.

There are two critical stages in making *pâte à choux*. The first is on the stove, when you're drying the mixture out. Again, if you don't go far enough here, the mixture could be too wet, and if you go too far, you might scorch it, or it might separate into a greasy ball. The second critical stage is in adding the eggs. Although all *pâte à choux* recipes are written with a specific amount of egg, you should think of the egg as being a variable. You add the eggs one at a time because you're trying to achieve a very specific texture. After you add the first egg, you may want to add just part of the second one.

After you incorporate the eggs, you'll notice the dough starting to get a little firmer. Stop the mixer and scrape down the bowl. If the dough looks dry, you can add the rest of the second egg. You want the dough to have a soft, creamy, supple quality and be shiny.

You can now transfer the finished *pâte à choux* mixture to a pastry bag and pipe out different shapes for *éclairs* and *profiteroles* (see "Piping Pastry Dough").

To bake the piped pastries, start off at a higher temperature (about 400°) and allow the dough to puff up in the oven for 10 or 15 minutes. Once the dough has expanded, it's very fragile, so you'll need to turn the oven down and dry the pastries out for an additional 15 or 20 minutes at a lower temperature (325°). After they're done, the pastries are ready for filling. For this, you can use a classic pastry cream, or you can split the pastries in half and fill them with whipped cream.

Piping Pastry Dough

Before you begin, draw lines on a piece of parchment paper to serve as a guide when you're piping and ensure that the piped shapes are uniform. Place a second piece of parchment paper over the first and pipe directly on that. Use a little bit of dough to stick the parchment paper down so that it doesn't lift up as you pipe. Keep in mind that this dough will expand, so you need to allow space between the piped shapes.

You can use either a plain tip or a star-shaped tip to pipe pastry dough. To fill the bag, fold it over your hand, then press some of the choux paste mixture inside the bag.

For éclairs, don't pipe downward onto the paper. Instead, hold the pastry bag at an angle, touch it to the surface of the paper, squeeze, and let the dough come straight out. Then touch down on the paper and pull away. As you're piping, you're actually lifting the bag so that the dough falls exactly where you want it to.

To make cream puffs, point the bag downward, squeeze, and twist the bag to make a ball shape.

If you're not going to glaze the finished pastries, you can brush the piped shapes with a bit of beaten egg to give them a shine.

Churros

Baking is just one of the ways that you can treat pâte à choux. You can also deep-fry it for some wonderful Mexican-style **churros**.

For this, you prepare the same pâte à choux mixture and transfer it to a pastry bag with a star tip. Then, heat a pan of vegetable oil to about 350°, hold the tip of the bag over the hot oil, pipe out the pastry directly into the oil, and cut it off with your finger. If you're nervous about working over hot oil, you could also pipe the churros onto a piece of parchment paper, chill them a bit, and then slip the entire piece of paper into the hot oil.



After the churros are nicely browned (about 4 or 5 minutes), take them out of the hot oil and drain them on paper towels. Then toss them in a cinnamon sugar mixture.

Pastry Cream

Ingredients

- 2 cups milk
- ½ cup sugar
- 1 ½ oz cornstarch
- 2 eggs
- 1 egg yolk
- 1 tsp vanilla extract

Optional:

- ¼ cup whipped cream
- Liqueur, eau-de-vie, or extract to taste



Pastry cream is a classic stovetop-cooked custard, similar to vanilla pudding, that forms the foundation for many dessert fillings.

Start by putting a blend of milk and a sprinkle of sugar into a pan and bringing the mixture to a boil. The little bit of sugar keeps the milk from scalding on the bottom of the pan. As you'll see, one difference between pastry cream and custard is that the pastry cream mixture is boiled when it's done. With custard, you have to be very careful not to boil the mixture so that it doesn't curdle. Making pastry cream is actually somewhat related to making a gravy because it has some cornstarch in it that allows it to thicken and avoid curdling.

Blend the rest of the sugar with the cornstarch; then, beat in the eggs. Whisk the mixture carefully to make sure it has no lumps. If you have lumps now, you won't be able to get rid of them later on.

When the milk has reached a simmer, pour a little of it into the egg mixture. This process is called **tempering**. If you were to just put the egg mixture into the hot milk, the eggs would scramble immediately. Instead, you introduce a little of the hot milk into the eggs to warm them up gradually. After you've tempered the egg mixture, spoon it into the pan with the milk.

Turn the heat down a bit and whisk constantly. At first, the mixture will look fairly fluid, but it will thicken up rather abruptly and come to a bubbling boil.

Turn the heat down a little bit, grip the whisk tightly in the palm of your hand, and really work it so that no lumps form in the mixture. Cook the cream in this way for about a minute so that it loses any starchy flavor, then take it off the heat.

The last step is to gently stir in the flavoring. Pastry cream is typically flavored with vanilla, either vanilla extract or a vanilla bean. It can also be flavored with an infusion of milk and coffee beans, a cinnamon stick, or a bit of orange zest. Or you can add chocolate to the finished mixture, as well as different liqueurs.

At this stage, a little bit of butter may be added to enrich the pastry cream, or you might wait for it to cool off and then fold in some whipped cream.

Chocolate Ganache

Ingredients

- 5 oz cream
- 1 oz corn syrup
- 8 oz finely chopped chocolate



Ganache is classically the foundation for chocolate truffles and other types of candies, but we'll use it as a glaze for *éclairs*. The ratio of chocolate and cream in the recipe depends on what you're using the ganache for—a glaze for a cake, a dessert sauce, or a filling for chocolate candy.

Bring the heavy cream and corn syrup to a boil. Corn syrup helps make the mixture shiny and sweetens it a bit. It also helps prevent the sugar from crystallizing out of the chocolate and gives you a smoother glaze.

When the cream is at a rolling boil, take it off the heat and pour it over the finely chopped chocolate in a bowl. Make sure the chocolate pieces are very small; otherwise, you'll find that the cream cools off before the chocolate is sufficiently melted. When you go to emulsify the mixture, it will be likely to separate and become gritty.

When it's used as a glaze for *éclairs*, chocolate ganache doesn't really need to be flavored, but if you're using it for the center of a chocolate candy, you might want to infuse some flavor into the cream or add some liqueur to the finished product.



Allow the cream and chocolate to rest for about 30 seconds without stirring the mixture. Once the chocolate has started to melt, whisk it in the center of the bowl, using a whisk, a rubber spatula, or an immersion blender. Note that chocolate ganache is an emulsion, much like mayonnaise is an emulsion. You whisk it starting in the center of the bowl and then slowly whisk in larger circles out toward the edge of the bowl to incorporate the entire mixture.

Look for the mixture to become shiny and thick. When it does, allow it to chill for a little while and then use it as a glaze for filled éclairs (see “Filling Pastries”). Carefully dip the tops of the éclairs into the ganache.

Hard Caramel Glaze

Ingredients

- 24 oz sugar
- 4 oz corn syrup
- 8 oz water



Working with caramel can be dangerous; handle it carefully so that you don't get burned. To start the caramel glaze, dissolve the sugar with just enough water so that it resembles wet sand. Add a little bit of corn syrup to prevent the sugar from crystallizing. If you don't add corn syrup, the finished caramel syrup may become very cloudy. Sugar naturally exists in a crystalline format, which you're changing into a syrup. Corn syrup will help to keep it in the stage that you're looking for.

Once you have thoroughly mixed the sugar, water, and corn syrup, don't stir it any more. If you've splashed the insides of the pan, use a brush dipped in cold water to wash down the sides. Bring the mixture to a boil, putting a lid on the pan so that the moisture of the boiling syrup will wash down the sides.

It takes several minutes to cook out the syrup so that the moisture is evaporated, but then, the sugar will start to turn a light brown color. To judge the color, dip a light-colored spoon into the mixture and take it out to look at it. Don't let the caramel get too brown because then it will become bitter.

Take the pan off the heat and allow it to sit for a few seconds until the bubbles start to dissipate. Then, dip the pan at an angle into ice water. If you place the flat bottom of the pan in the water all at once, the hot caramel could bounce up and splash on you.

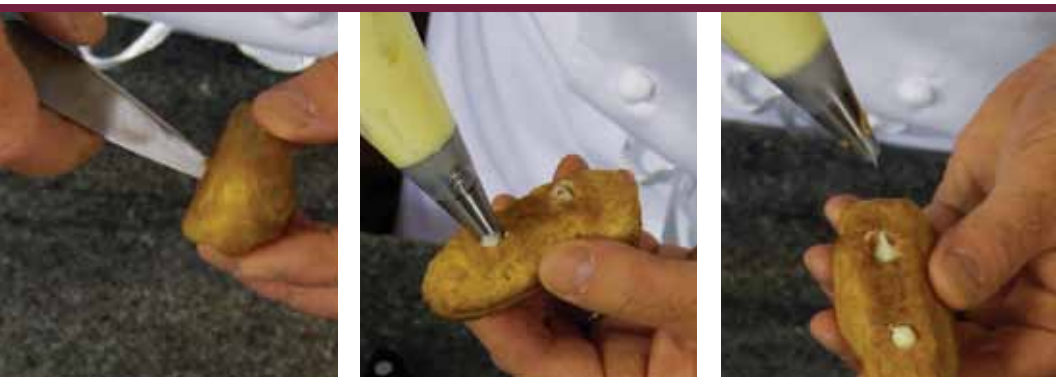
Wait for the mixture to cool to the point that it has a honey-like texture throughout. To use as a glaze, hold a pastry in one hand, dip it very carefully into the caramel syrup, and let the excess syrup drip off. Remember, the caramel is still hot. You may want to keep some ice water nearby so that if you accidentally drip caramel syrup on your fingers, you can cool them off quickly. A cream puff dipped in caramel will have a crunchy texture across the top that contrasts beautifully with the light texture of the cream inside.

If you're making a **croquembouche**—a tower of cream puffs glazed with caramel—you'll need to put the syrup back on the stove periodically to keep it soft and fluid. A croquembouche is a traditional French wedding cake that resembles a Christmas tree.

Filling Pastries

As soon as it's made, pastry cream will look soft and soupy, but as it cools off, it will thicken considerably. To cool it, transfer it to a bowl and put a piece of plastic wrap right on the surface to prevent a skin from forming, then put the bowl in the refrigerator or a larger dish of ice water. Don't leave it out at room temperature.

After the pastry cream has cooled completely, it will likely be too thick to use for filling a dessert. If that happens, soften it by beating it with a whisk or use a mixer with a paddle attachment.



Fill éclairs by poking two small holes in the bottom of the pastry with a paring knife or chopstick. Poke the tip of a pastry bag through to the hollow cavity and fill each hole with pastry cream.



Top cream puffs with a hard caramel glaze or chocolate ganache. Carefully dip the tops of the pastries into the glaze. When the glaze has set, cut off the top of each pastry with a serrated knife, fill with whipped cream, and reattach the top.

To fill a glazed cream puff, use a serrated knife to clip off the top of the pastry. Open it carefully and fill it with a bit of whipped cream, then put the top back on, like a little hat.

For chocolate éclairs, rather than cutting the top, you fill them from underneath. Poke two small holes in the bottom of the baked chocolate éclair with a sharp paring knife or a chopstick. The éclairs are hollow, so you need to poke through to the cavity inside. Use a pastry bag with a small tip to fill each hole of the éclair with pastry cream. If the cream starts to come back out of the first hole, then you know it's filled.

Important Terms

churro: A Mexican pastry made with choux paste that is deep-fried and tossed in cinnamon sugar.

croquembouche: A traditional French wedding cake consisting of a tower of cream puffs glazed with caramel.

ganache: A glaze or sauce used as a topping for pastries and cakes.

pâte à choux (choux paste): Pastry dough used to make éclairs, cream puffs, and so on.

profiterole: A cream puff; a small pastry ball filled with whipped cream or pastry cream.

tempering: The process of introducing a small amount of a hot ingredient to a cold ingredient before heating the mixture. Tempering prevents the cold ingredient, especially eggs, from cooking prematurely.



Simple to Elegant— Custards

Lesson 5

Custards are a great dessert choice largely because they're simple to make, yet they can lead to an elegant and sophisticated final product. On top of that, most of the ingredients that go into custards are things you already have around the kitchen, so making one doesn't take a lot of planning. In this lesson, we'll make a sample from each of the two major categories of custard: those prepared on the stovetop and those prepared in the oven.

General Tips

A general rule for making custard is to use a low temperature and cook it over an extended period of time. Think of this as the low-and-slow technique.

Always strain custard through a fine-mesh sieve to avoid having any undissolved sugar, bits of vanilla bean, or pieces of egg in the finished dessert.

Avoid over-aerating a custard mixture, which will cause the custard to rise (or **soufflé**) when you bake it. If you've ever seen a cheesecake or pumpkin pie that has a crack across the middle, that means it was over-aerated, or over-blended, in the mixing process and then has risen and fallen back down when baked.

Crème Anglaise

Ingredients

- 2 cups milk
- 2 cups cream
- 1 vanilla bean
- ½ cup sugar
- 8–10 egg yolks



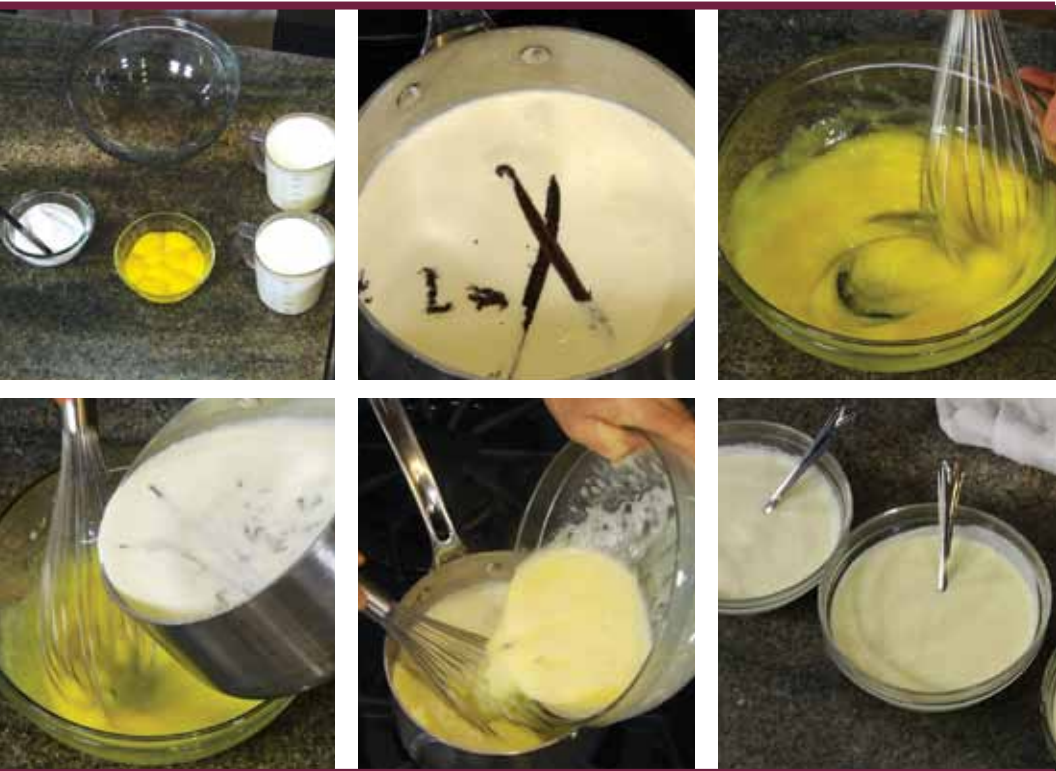
Crème anglaise is probably the most basic of all custards, but the preparation is a little bit tricky because, unlike the pastry cream we made in our previous lesson, crème anglaise has the potential to overcook and become scrambled.

Crème anglaise can be used as a dessert sauce, as the foundation for such elegant desserts as Bavarian cream, and as a base for ice creams.

The ingredient list for crème anglaise is much like that for pastry cream, but it omits cornstarch, and it's for that reason that this mixture must be cooked very carefully.

Pour the blend of milk and cream into a saucepan and bring to a boil. The proportions of these two ingredients can vary, depending on the desired outcome for the sauce. Pour a portion of sugar in with the milk to keep the milk from scorching when it comes to a boil and then add the vanilla bean (see "Vanilla Infusion").

Separate the egg yolks into a bowl and add some sugar. Note that if you just pour the sugar on top of the egg yolks and walk away, within a short period of time, the egg yolks will start to scorch. The sugar literally cooks the egg yolks. It's important that you whisk the mixture to blend it fairly quickly.



For crème anglaise, make a vanilla infusion with a blend of milk and cream. Whisk the egg yolks and sugar together, and then temper the eggs with the hot milk mixture. Transfer the egg yolks to the boiling milk on the stove and whisk until thickened.

As you stir, the egg yolk and sugar mixture will start to thicken up; you'll be able to form a small ribbon in the blend.

When the milk and sugar mixture comes to a simmer, take it off the stove and temper the hot milk into the egg yolks. If you like, use a ladle to add a small portion of the liquid to the egg yolks—about a third or a half of the hot milk. Remember, the reason for doing this is to gradually raise the temperature of the egg yolks to avoid scrambling them prematurely. This is part of the low-and-slow technique.

Transfer the egg yolks back to the boiling milk on the stove and turn the heat down lower if necessary. As you whisk, you'll notice that the mixture is getting frothy on top, which makes it difficult to judge how the sauce is thickening. At this point, put your whisk aside and use a wooden spoon to stir the mixture very slowly. Make sure you stir completely around the saucepan and through the middle so that the sauce doesn't scorch on the bottom.

When the sauce has thickened, turn off the stove. Test the thickness of the sauce (see “Judging Sauce”), and if it starts to drip, return the sauce to low heat and stir it gently for a few more minutes.

The next step is to strain the finished sauce through a fine **shinwa strainer** into a bowl that is sitting in an ice-water bath. Press on the strainer to make sure all of the mixture goes through, including some of the vanilla seeds, which make the finished sauce look sophisticated. Check the bottom of the saucepan to make sure you don't see any scrambled egg inside.

Crème anglaise can be kept in the refrigerator for about four or five days.



Vanilla Infusion

Vanilla beans come in many different varieties and from different sources all around the world. Bourbon vanilla beans, from the Bourbon Islands of Madagascar, have a robust vanilla flavor. Vanilla beans from Mexico also have great flavor, and the prized vanilla beans from Tahiti have a unique floral quality.

Using a vanilla bean in making custard is not unlike making a cup of tea: The longer you leave the teabag in the hot water, the more flavor you'll get. This method for imparting flavor is called **infusion**.

To make a vanilla infusion, choose a plump, fragrant vanilla bean. The flavor of vanilla beans comes from the pod itself and the seeds on the inside. Use a paring knife to slice the bean down the middle and scrape out the seeds.

Remember, if you're using extract to make a vanilla sauce, you add it at the final stage. But if you're using vanilla bean for flavoring in the sauce, add it to the milk as you bring it to a boil. You can also put the vanilla bean into the milk several hours or the night before you plan to make the sauce. To get the fullest flavor out of the vanilla bean, a longer infusion time is a good idea.

Vanilla beans are rather expensive. After you've used one to make a sauce, you can rinse it off in hot water and dry it to be saved and used in another recipe.

Judging Sauce

The thickness of a sauce, such as *crème anglaise*, tells you whether or not it has been fully cooked. To judge the thickness, run a wooden spoon through the sauce and lift it up to see how the sauce drips off the spoon. Note that you can't use a rubber spatula for this test, because the sauce will roll off the surface.

The classic test here is to see whether or not the sauce holds its shape when you draw a line on the back of the spoon with your finger. If the line stays intact, the sauce has reached the **nappé stage**. If it starts to drip, return the sauce to low heat and stir it gently for a few more minutes.

You can also use a thermometer to judge whether the sauce is done. Look for a reading of 180° to 182°. Make sure you don't touch the thermometer to the bottom of the pan; you want to take the temperature of the sauce itself, not the saucepan.



A sauce has reached the nappé stage when it coats the back of a spoon and a line drawn through it with a finger stays intact.

A sauce that has been prepared properly will coat the back of a spoon and have a glossy, luxurious quality. An undercooked sauce will run on the plate and won't have the proper **mouthfeel**. An overcooked crème anglaise will be eggy—leaving an unpleasant scrambled egg quality in the mouth—and it may smell somewhat sulfurous, like overcooked eggs.

Butterscotch Pudding

Ingredients

- 10 oz brown sugar
- 4 oz sugar
- 3 oz cornstarch
- 2 tsp salt
- 60 oz milk
- 3 eggs
- 2 egg yolks
- 2 oz butter
- 1 oz vanilla extract



Making pudding is very similar to making pastry cream. Pudding can be eaten as a dessert by itself—perhaps with a little whipped cream on top—or can be used to make cream pie.

For this butterscotch pudding, combine milk and sugar in a saucepan, bring the mixture to a boil, and then temper it into a blended mixture of eggs and cornstarch. After the mixture has been combined and brought back to a full boil, take it off the heat.

Next, add vanilla extract and the butter, which enriches the custard, gives it a buttery flavor, and enhances the mouthfeel. At this point, the mixture will look very fluid; it will take a while to set completely.

To make a pie, pour the custard into a blind-baked pie shell. Of course, you could make a vanilla-flavored custard and add some bananas for a banana cream pie or make a chocolate-flavored pudding for a chocolate cream pie. You can also combine the pudding with some sponge cake and fruit to make a classic **trifle**. If you plan to chill the custard to enjoy it as pudding, put a piece of plastic wrap right on the surface to prevent a skin from forming across the top.

Crème Caramel (Flan) and Crème Brûlée

Ingredients

Cinnamon Flan:

- 1 cup plus an additional $\frac{1}{3}$ cup sugar
- $\frac{1}{4}$ cup water
- 1 $\frac{1}{4}$ cups milk
- $\frac{3}{4}$ cup cream
- 1 cinnamon stick
- 1 vanilla bean, split
- 3 eggs
- Large bowl of ice water

Crème Brûlée:

- 1 pt heavy cream
- 1 vanilla bean, split
- $\frac{1}{3}$ cup sugar (plus extra to caramelize the top)
- 6 egg yolks



Crème caramel and crème brûlée are two variations of classic oven-baked custards. Both of them involve using the standard custard technique, but for a typical crème caramel, you use a deep **ramekin**, and for a crème brûlée, you use a shallow ramekin.

To begin, prepare caramel on the stovetop following the same process we used in the previous lesson when we made profiteroles. You may want this caramel to be slightly dark to give a little bit of bitterness to the finished product. Spoon a small amount of hot caramel into the bottom of a ramekin. Pick up the ramekin and give it a twist to make sure that the caramel is evenly coated on the bottom.

Two different preparations are required for the custard in these desserts. A crème caramel, or a flan, is a lean custard. It has a certain rubbery quality to it. A crème brûlée is much richer and much fattier.

For the crème caramel, blend warm milk that has been infused with vanilla and cinnamon into the whole eggs. Because this custard uses whole eggs, it has much more protein than a custard that uses only egg yolks. Egg whites make the custard a bit more rubbery or elastic. Note that this is an oven-baked



custard, not a stovetop custard, so the milk that is added to the eggs is not at the point of boiling.

Crème brûlée is made with egg yolks and heavy cream, which means that it's much fattier and has a rich, decadent mouthfeel.

Strain the custard through a fine-mesh sieve and then pour it into prepared ramekins. For the crème caramel, fill the deep ramekin right up to the top. For the crème brûlée, partially fill the shallow ramekin. The crème brûlée will look thin when you pour it into the ramekin, but because it is a rich egg yolk and cream mixture, it will thicken up considerably to a luxurious texture.

Bake both custards at a low temperature (300° to 325°) in a water bath, or **bain-marie**, for about 30 or 40 minutes. Using the water bath allows the custard to cook a little more gradually because the water temperature won't ever reach as high as the oven temperature. Fill the pan for the bain-marie with water to about half the depth of the ramekin.

Test the custards for doneness by gently jiggling them and looking for a small wiggle in the custard. Remove the pan of hot water carefully from the oven, allow the ramekins to cool off, and wipe them dry. Refrigerate for a couple of hours or overnight.

To take a crème caramel out of its ramekin for a more elegant presentation, use a teaspoon to break it carefully away from the edge. Then turn it upside down onto a plate and remove the ramekin with a fast jerking motion. The custard will come out of the ramekin and leave a bit of sauce on the plate.



The method for finishing a *crème brûlée* involves building a caramel layer across the top. Blot the surface of the *crème brûlée* with a paper towel to absorb any excess moisture, then spoon some granulated sugar on top.

Classically, *crème brûlée* is finished with an iron called a **salamander**, but nowadays, most people use a propane torch. Hold the torch about 3 or 4 inches over the surface of the *crème brûlée* to gradually warm the sugar and yield a caramelization. Remember that *brûlée* means “burn”; it’s acceptable to get a dark caramel here.

French-Style Buttercream

Ingredients

- 12 oz sugar
- 4 oz water
- 6 egg yolks
- 16 oz butter, softened
- Flavoring (vanilla extract and brandy) as needed



French-style buttercream is an incredibly rich and luxurious frosting with a wonderful mouthfeel. Other types of buttercreams are made with egg whites only and are meringue based.

We start by making a mixture called a **sabayon**, a sauce consisting of egg yolks, sugar, and wine, liqueur, or brandy. First, heat sugar and water to make a syrup and then add a little bit of vanilla extract and brandy. To the syrup, add egg yolks and put the mixture over hot water on the stove. Be careful that the flame is not so high that it starts to come up over the sides of the pan.

Cook and stir until the egg yolks start to thicken, which may take some time—2 or 3 minutes. Look for the egg yolk mixture to “hold a ribbon,” meaning that when you pull the mixture up and drape it over itself, you will be able to see some shape in the eggs. If you can see the bottom of the bowl when you’re whisking, that’s also a good indication that the mixture is thickening. As with any other cooked-egg mixture, such as the *crème anglaise* we made earlier, there is a danger of overcooking, so be careful that you don’t go too far.

Transfer the *sabayon* to a mixer and whip it on high speed until it cools to room temperature. Add the softened butter after the mixture has cooled; otherwise, the butter will melt, and you won't get the volume or texture you're looking for in the finished product. Add the butter in pieces, allowing it to blend into the *sabayon*. Again, if the butter is too hard, it won't blend in, and you'll end up with a lumpy mixture. Wait for each piece to blend in before you add more.

Once you've added all the butter, turn the mixer back up to high speed to make sure that it's thoroughly incorporated. Use the finished buttercream to frost a cake or freeze it for future use.

Frosting a Cake

It's not unusual for a finished cake to form a dome. To make it level for frosting, trim the top with a long, serrated cake knife. The trimmings can be dried out and ground to make cake crumbs for another use.

To divide the cake into layers, hold the serrated knife level about one-third of the way down the cake and make a score mark around the outside by turning the cake and sawing a bit back and forth. Once you've gone all the way around, push the knife forward and cut toward the center; this method generates fewer crumbs. Take the top third off and repeat the process for the next layer. Sweep away any crumbs on your work surface so they don't appear on the finished cake.



A turntable allows you to get an even, level distribution of buttercream as you're frosting a cake, but you can also hold the cake in the palm of your hand. If you're using a turntable, place a piece of cardboard on top as a base for the cake, and make sure you place the cake in the center.

Make each layer of frosting about half the thickness of the cake layer itself. Remember, you're making a birthday cake, not a birthday frosting, so the emphasis should be on the cake!

When you add the second layer on top of the first, press it flat with your hand; if the cake is delicate or moist, press it with a second piece of cardboard. Use the same amount of frosting on the second layer as you did on the first.

Try to get an even layer across the top without any crumbs. To form the **crumb coat**, hold your **palette knife** at an angle close to the blade and seal the edge. At this point, you may want to refrigerate the cake to give the crumb coat a chance to firm up before you apply the finish coat.



To frost a cake, first even off the top by trimming with a serrated knife. Create layers by scoring around the outside of the cake, and then cutting through the center. Make each layer of frosting about half the thickness of the layer. Seal the edge of the crumb coat (on the top layer) with a palette knife, add a little more frosting for the finish coat, and decorate with a topping, such as crumbs of **croquant**.

For the finish coat, add a little more frosting across the top and sides, if necessary. For our chiffon cake with buttercream, add some crumbs of **croquant**, a caramelized hazelnut mixture, as a final touch.

Slip your palette knife between the bottom of the cake and the cardboard to remove the cardboard and transfer the cake to a presentation plate.

Important Terms

bain-marie: A water bath; used to allow food to cook gradually. The term also refers to the vessel that holds the water in this technique.

croquant: A caramelized hazelnut mixture that can be crumbled over cakes or eaten like peanut brittle.

crumb coat: A thin layer of frosting that seals the cake to ensure no crumbs will appear in the finish coat.

infusion: The process of steeping ingredients, such as vanilla beans, in a hot liquid to impart flavor.

mouthfeel: The way a food feels in the mouth, particularly its texture and consistency.

nappé stage: The point in the thickening of a sauce when the sauce coats the back of a spoon and holds a line drawn through it with a finger.

palette knife: A knife with a rounded blade used for spreading.

ramekin: A small dish used for baking and serving individual portions of food or desserts.

sabayon: A sauce consisting of egg yolks, sugar, and wine or liqueur.

salamander: A small iron used to brown the top of a dish, such as crème brûlée.

shinwa strainer: A fine-mesh, cone-shaped sieve.

soufflé: The act of rising when baked; also a light dish made with beaten egg whites that rises in the oven.

trifle: A dessert made of layered sponge cake, fruit, and custard.



Final Touches—Mousse and Dessert Sauces

Lesson 6

Panna cotta and chocolate mousse are both easy to make yet offer lots of possibilities for elegant presentations. Panna cotta has the rich, luxurious quality of a custard, but in fact, it's a cream-based dessert that's thickened with gelatin. Mousse can also be based on cream, but some recipes start off with a *sabayon* base, similar to the buttercream we made in an earlier lesson. In other recipes, a meringue is folded into the mousse. Panna cotta, in particular, is a great recipe to have in your repertoire because it can be made a day ahead for a party. For a unique approach, try serving either of these desserts in wine or martini glasses and spooning a delicious sauce on top.



General Tips

When you're blending any mixture, resist the temptation to move your body around. Try to stand straight and move the food around to accommodate your body motions; that way, you won't wear yourself out so quickly.

Before you make chocolate mousse, have a plan in mind. Have your serving dishes ready, and think about how you're going to get the mousse into the dish—by just spooning it in or transferring it to a pastry bag. You want to



avoid having the mousse set up before you're ready to get it from one place to another.

As mentioned in an earlier lesson, making caramel can be dangerous; it's definitely not a technique that you want children to try on their own.

The sauces used to garnish and complement restaurant desserts give them an extra touch of elegance. In addition to chocolate and caramel sauces, try fruit sauces.

Panna Cotta

Ingredients

- 1 cup plus an additional 1 $\frac{1}{4}$ cups milk
- $\frac{1}{2}$ cup sugar
- 1 vanilla bean
- 1 envelope ($\frac{1}{4}$ oz) powdered gelatin
- 1 cup heavy cream



Panna cotta, which literally means “cooked cream,” has the rich, luxurious quality of a custard, but in fact, it's not a custard; it's a cream-based dessert thickened with gelatin. Some variations of panna cotta use milk products that are a little acidic, such as buttermilk, yogurt, or **crème fraîche**. Note that gelatin is an animal-based product, which means that this dessert is not suitable for vegetarians.

The first step in making panna cotta is to hydrate the gelatin. Pour a portion of the milk into a bowl and sprinkle the gelatin over a broad surface area so that it will hydrate quickly and evenly. This step is called **blooming**. Gelatin cannot be hydrated in a warm liquid, so make sure the milk is cold or at least cool. Take the time to do this step carefully; if you splash the gelatin or don't get it evenly distributed over the top of the milk, it may not become fully hydrated, and the final product will have bits of undissolved gelatin in it.

It takes about 5 minutes to properly hydrate gelatin after you've got it evenly sprinkled over the top of the milk. During that time, you'll see that the surface of the milk becomes very rippled. After a couple of minutes, you can gently cut the surface with a whisk to expose a little bit of new milk, again, to ensure that all the gelatin becomes equally hydrated.

Next, dissolve the sugar into the cream in a saucepan. At this point, you might flavor the cream with a vanilla bean, coffee beans, cinnamon sticks, orange zest, or any type of fruit puree. You could even substitute fruit puree for some of the milk in this recipe.

Bring the cream to a boil and pour it into the bloomed gelatin mixture. Stir it around so that it's thoroughly dissolved. If you're using flavoring extract, add that now, along with the reserved milk, to cool off the mixture more quickly. If the cream mixture is too hot when you pour it into a ramekin, it may separate into layers with the cream floating on top. Strain the mixture through a fine-mesh sieve and then pour it into dessert dishes or martini glasses. Refrigerate for several hours or even a day or two.

Whipped Cream

Whipped cream is a component of many desserts and can be made in many different textures. In a mousse, for example, the cream is under-whipped and remains quite fluid. The catchphrase to remember when you're making a mousse is: "If it's not pourable, it's deplorable!"

Whipping the cream beyond the texture for a mousse yields the texture you might want as a dollop on top of a finished dessert. Here, the cream is just starting to hold its shape.

If you keep whipping the cream, you'll reach the stage at which it could be put into a pastry bag and piped into cream puffs.

At this point, if you overdo the whipping, you can gradually stir in a little bit of liquid cream to deflate the whipped cream and make it more fluid; then, you begin the whipping process again. Note that this is not a way to fix a broken



or ruined whipped cream, but it can certainly soften the cream back to a fluid texture for making a mousse.

Cream that is over-whipped becomes very thick and grainy. It starts to look like butter and, in fact, will eventually completely separate into fat and water. Once cream has reached that stage, there is nothing you can do to rescue it.

Whatever texture you're trying to reach, remember that it's important to start off with cold cream right from the refrigerator.

Chocolate Mousse

Ingredients

- 16 oz cream
- 8 oz half-and-half
- 1 oz sugar
- 3 egg yolks
- 12 oz chocolate
- 1 oz espresso or liqueur



Chocolate mousse is a remarkably versatile component for desserts. You can, of course, eat it by itself, or you can use it to fill a cake. Making chocolate mousse combines a few of the techniques we've already learned.

Start by blending a *crème anglaise*. Remember that with *crème anglaise*, you cook it just to reach the *nappé* stage. If you overcook it, it will be curdled and not very attractive in its texture. If you undercook it, then the mousse won't have the proper texture either. Make sure you strain the *crème anglaise* to remove any remaining small bits of egg.

Next, pour the *crème anglaise* over chopped chocolate, just as if you were making a ganache. This variation is called an egg ganache and is frequently used for making centers for candies.

Allow the chocolate to rest for a few minutes so that it will start to melt, then blend the mixture. If you think your chocolate may be too cold to melt completely, you can heat the mixture in the microwave for a few seconds, or you can partially melt the chocolate in the microwave before adding the *crème anglaise*. Notice that this mixture is much, much thicker than the glaze we made in an earlier lesson because there's a higher proportion of chocolate

to hot liquid in this recipe. When the crème anglaise and the chocolate are thoroughly blended, you can add some brandy or other flavoring if you like.

When you're preparing a chocolate mousse, it's important to understand that the cream is the aerator, not the stabilizer, of the mousse. The mousse will set up because the chocolate has cocoa butter, which will firm up as it's cooled. Resist the temptation to over-whip the cream. Remember, if the cream isn't pourable, it's deplorable.

Before adding the whipped cream, test the temperature of the chocolate mixture with a thermometer—it should be about 95°—or have a taste of it; if it feels like it's about body temperature, you can proceed. If the chocolate is too hot when you add the cream, the cream will deflate, and the mousse will be too dense. If the chocolate mixture is too cold, the cream could separate and break, becoming grainy.

Fold the whipped cream in all at once and keep blending until it's thoroughly mixed, with no white or brown stripes. Again, you may be surprised at how fluid the mixture is.

Frosting a Cake with Mousse

Many cakes served in restaurants use mousse instead of traditional frosting, and the method used for frosting a cake with mousse is certainly much faster than spreading a buttercream.

If necessary, trim the cake to fit inside a stainless-steel cake ring, remembering to save the cake crumbs for another use. Place the first layer of cake inside the ring and pour some of the mousse on top. Then fit the second layer of cake

Unmolding and Presenting a Cake

To unmold a cake from a cake ring, give the ring short bursts of heat from a propane torch as you turn it. The idea here is to melt the cream in the mousse in order to remove the cake from the ring. Don't heat up the mousse too much, though, or the glaze will melt over the sides of the cake.

To transfer the cake to a presentation plate, move both

the cake and the cardboard it's sitting on to the plate. Insert a spatula between the cake and the cardboard and slide the cardboard out.

Dress up the cake with crème anglaise sauce, vanilla custard, caramel sauce, chocolate and honey sauce, or whipped cream; then add some shavings from a bar of chocolate.

carefully on top of the first and pour on the rest of the mousse. Smooth the surface with an offset spatula.

In restaurants, these desserts are often made in individual ring molds, using the same technique for frosting.

Put the mousse cake into the refrigerator or freezer to set up. Although the mousse will seem very soft at this point, it will firm up to allow you to cut even slices from the cake.



To top the mousse cake, prepare the same chocolate glaze that we made for chocolate éclairs. If the glaze sets up prematurely, you may need to warm it in the microwave to make it fluid again, but be careful not to overheat it, or it could break and separate.

Pour the glaze over the top of the cake and use a spatula to push it out to the side. Don't worry if it dribbles over the ring mold because that will be removed before serving. After glazing, put the cake back into the refrigerator for about 10 or 15 minutes.

Caramel Sauce

Ingredients

- 24 oz sugar
- 4 oz corn syrup
- 8 oz water
- Cream



The process for making caramel sauce begins in the same way as the caramel glaze we made for profiteroles earlier. Combine sugar and corn syrup in a pan and cook until it reaches a deep amber color. Remember that it's hard to judge the color of caramel while it's cooking. It always looks darker in the pan than it actually is. Try dripping a small amount onto a piece of white cardboard or a plate to judge the color. Make sure you don't take the caramel too far, or it will be burned and bitter tasting.

When the caramel reaches the appropriate color, carefully add some cream. Again, making this sauce is dangerous. Even at a boil, the temperature of cream is at least 100° different from the temperature of cooked sugar. Add the cream very slowly, or the mixture might splash up out of the pan. It's also wise to use a slightly larger saucepan than you think you might need because the mixture will expand quite a bit.

You may notice that the cream and caramel mixture will boil for quite a while, even though you've taken it off the heat. Although it looks fluid when it's hot, as it cools, the mixture will thicken to the point that it can't be used as a sauce. You can thin it out with a bit of liqueur, fruit puree, water, or more cream.

Chocolate Sauce with Honey

Ingredients

- 16 oz heavy cream
- 2 oz honey
- Vanilla extract (to taste)
- 12 oz melted chocolate



Chocolate sauce comes in many variations. In some recipes, you make a syrup, bringing sugar and water to a boil and adding chocolate; in other recipes, chocolate sauce is made using cocoa powder. This chocolate sauce with honey is a variation of ganache, which is a typical chocolate sauce.

Start by heating the cream and adding some honey. Instead of pouring the cream over the chocolate, warm the chocolate in the microwave or over a **double boiler** and then add it to the simmering cream. Allow the mixture to rest briefly before you stir.

At this point, you can add vanilla extract or liqueur. You might also combine the chocolate with caramel. Caramelize a little bit of sugar first and deglaze it with the cream (see “Caramel Sauce”); then add chocolate sauce to the caramel.

Blend the chocolate with the flavoring. If you find that the sauce thickens too much as it cools, blend it with a little water to thin it out. Chocolate sauce has a long shelf life and can be kept for weeks in the refrigerator.

Important Terms

blooming: Term for the process of spreading gelatin on a liquid to hydrate it.

crème fraîche: Soured cream.

double boiler: Essentially, a two-piece pot; boiling water in the lower pot is used to heat delicate ingredients, such as chocolate, in the upper pot.



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Glossary

bain-marie: A water bath; used to allow food to cook gradually. The term also refers to the vessel that holds the water in this technique. (See **double boiler**.)

bench flour: Small bit of flour scattered on the work surface (“bench”) to prevent dough from sticking as it is rolled or kneaded.

blind baking: Baking a piecrust before filling; this technique is used for pies that have a custard filling, such as chocolate or banana cream pie.

blooming: Term for the process of spreading gelatin on a liquid to hydrate it.

churro: A Mexican pastry made with choux paste that is deep-fried and tossed in cinnamon sugar.

combination method: A method of mixing in which some form of chemical leavener, such as baking powder or baking soda, is moistened with either water or milk, resulting in the formation of carbon dioxide bubbles that expand when exposed to heat.

creaming method: A method of mixing that incorporates air into butter to cause dough to rise when exposed to heat.

crème fraîche: Soured cream.

croquant: A caramelized hazelnut mixture that can be crumbled over cakes or eaten like peanut brittle.

croquembouche: A traditional French wedding cake consisting of a tower of cream puffs glazed with caramel.

crumb coat: A thin layer of frosting that seals the cake to ensure no crumbs will appear in the finish coat.

docking: In blind baking, the practice of pricking holes in the bottom of a piecrust to prevent the dough from bubbling up. Docking is not necessary if pie weights or baking beans are used.

double boiler: Essentially, a two-piece pot; boiling water in the lower pot is used to heat delicate ingredients, such as chocolate, in the upper pot. (See **bain-marie**.)

flavorings: Ingredients, such as salt, chocolate chips, raisins, or nuts, that add flavor and texture to a dough but don't influence the formation or behavior of the dough.

foaming method: A method of mixing in which eggs (either whole or separated) are whipped to incorporate air; the air in the eggs causes dough to rise when exposed to heat.

ganache: A glaze or sauce used as a topping for pastries and cakes.

infusion: The process of steeping ingredients, such as vanilla beans, in a hot liquid to impart flavor.

leavening: The process of rising when a dough or batter is exposed to heat; also, ingredients that cause rising, such as baking soda.

liquefiers: Ingredients that make doughs become softer and perhaps make them spread, commonly, sugar and butter.

mouthfeel: The way a food feels in the mouth, particularly its texture and consistency.

nappé stage: The point in the thickening of a sauce when the sauce coats the back of a spoon and holds a line drawn through it with a finger.

palette knife: A knife with a rounded blade used for spreading.

pâte à choux (choux paste): Pastry dough used to make éclairs, cream puffs, and so on.

pie weights: Small ceramic or stainless-steel balls that are used to weigh down a piecrust for blind baking. Dried beans from the grocery store may also be used for this purpose.

profiterole: A cream puff; a small pastry ball filled with whipped cream or pastry cream.

ramekin: A small dish used for baking and serving individual portions of food or desserts.

rubbed-in dough method: A method of mixing in which butter or shortening is literally rubbed in to flour with the hands; used for making flaky doughs, such as those for piecrusts and biscuits.

sabayon: A sauce consisting of egg yolks, sugar, and wine or liqueur.

salamander: A small iron used to brown the top of a dish, such as crème brûlée.

shinwa strainer: A fine-mesh, cone-shaped sieve.

soufflé: The act of rising when baked; also a light dish made with beaten egg whites that rises in the oven.

stabilizers: Ingredients, such as eggs and flour, that help doughs hold together.

tamis: A drum sieve.

tempering: The process of introducing a small amount of a hot ingredient to a cold ingredient before heating the mixture. Tempering prevents the cold ingredient, especially eggs, from cooking prematurely.

trifle: A dessert made of layered sponge cake, fruit, and custard.



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